DOCUMENT RESUME

ED 275 381 JC 860 576

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TITLE The Economic Impact of Pueblo Community College, 1985-86.
INSTITUTION Pueblo Community Coll., CO.
PUB DATE [86]
NOTE 16p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Community Colleges; *Economic Climate; Economic Factors; Economic Opportunities; *Educational Economics; *Educational Finance; *Expenditures; School Business Relationship; School Community Relationship; State Aid; Two Year Colleges
IDENTIFIERS *Economic Impact; Economic Impact Studies

ABSTRACT

A study was conducted to assess the economic impact of Pueblo Community College (PCC) upon its three-county service area for the 1985-86 academic year. The study sought to demonstrate that state funding for PCC yields high economic dividends for Colorado, and that public higher education institutions can be accountable in terms of measurable economic outcomes. The study utilized a basic economic impact model which measures direct expenditures including the college budget (less wages and financial aid), faculty and staff wages (less benefits and withholding taxes), student financial aid awarded, and spending by college visitors. Indirect expenditures included the average wages from jobs in new verified small businesses assisted by the college, and the actual wages from jobs created by six new industries to which PCC contributed. The results of the study indicated: (1) PCC made a 333% direct return on the total state general fund and student financial aid investment; (2) PCC made a 1,552% return on the total state investment when indirect economic impact is included; (3) the direct economic impact of PCC was $13,259,036; and (4) the indirect impact of the college was $48,426,158. (LAL)

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# THE ECONOMIC IMPACT OF PUEBLO COMMUNITY COLLEGE 1985-86

P. Anthony Zeiss, President

JC 860 576

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"The builders of the new Pueblo
are the real pioneers, real frontiersmen,
worthy examples."

Paul Harvey, February 16, 1986

"You can see it (American spirit) at
Pueblo Community College where men and women
are being retrained for the jobs that exist and
for the jobs of the future."

George Bush, February 27, 1986

ACKNOWLEDGMENTS

Dr. Monique Amerman

Mr. Ralph Huddin

Mr. Bob Kirscht

Dr. Jerry Moorman

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# EXECUTIVE SUMMARY

Pueblo Community College is a pragmatic, client-centered institution which anticipates and meets the needs of its community. During the academic year 1985-86, Pueblo Community College was a major contributor to its community's economic development efforts. The college participated in several Pueblo Economic Development Corporation "advance teams" which pitched Pueblo, Colorado to new industries. Pueblo Community College then custom-trained 1,241 people for six new industries. The college's Center for Small Business also contributed to the development of an additional 93 full-time and 67 part-time jobs. The need to examine the direct and indirect impact of this college's activities is apparent.

The purposes of this study on the 1985-86 (Academic Year) economic impact at Pueblo Community College upon its three-county service area were to demonstrate that

1) State funding for Pueblo Community College yields high economic dividends for Colorado.
2) Public higher education institutions can be accountable in terms of measurable economic outcomes.

The study utilized a basic economic impact model which measures direct expenditures including the college budget (less wages and financial aid), faculty and staff wages (less benefits and withholding taxes), student financial aid awarded, and spending by college visitors. Indirect expenditures included the average wages from jobs (less benefits), in new, verified small businesses assisted directly by the college's "Myers' Center for Small Business" and the actual wages from jobs (less benefits), created by six new industries where the college contributed significantly to their acquisition and labor force training. A conservative 1.9 multiplier was used in this study.

| | |
|---|---|
| PCC 1985-86 State General Fund Support | $ 3,975,387 |
| Direct Economic Impact | 13,259,036 |
| Indirect Economic Impact | 48,426,158 |
| Combined Impact | 61,685,194 |

The results of the study indicate that PCC's direct return on its Annual State investment is 333 percent. When direct and indirect returns are considered, PCC's return on its state investment is 1,552 percent. These figures indicate that public higher education institutions can be accountable in measurable economic outcomes.

It is recommended that:

1) All other State supported public colleges and universities replicate this study, utilizing the same variables and multiplier, as a means for gathering local and State-wide perspectives of the economic impact of our higher education institutions.

2) This study and others like it be utilized positively in the development of State funding requests for higher education in future years.

3) Additional studies be conducted by every public college and university on a regularly scheduled basis where each institution again uses the same model, variables and multiplier.

## I. Preface

In a 1985 Carnegie Foundation report titled Higher Education and the American Resurgence, it is emphasized that colleges and universities have a crucial role to play in keeping this country competitive economically, (Newman, 1985). Our nation's economic health is dependent largely upon our states' collective ability to encourage and support private sector innovation and competitiveness. Concurrently, local governments are also critical to our national and state economies because they provide the basic support services of education, infrastructure, and tax levies which are essential to the functioning of the private sector. A recent national report published by the (national) Committee for Economic Development purports that a state's economic strategy should consist of five basic activities

1) Diagnosis of the state's economic potential.
2) A vision aimed to invigorate the economic climate.
3) Actions that support the vision and are accountable.
4) Leadership from government, business, labor, media, and educators.
5) Partnerships among private and public sector institutions.

Clearly, the time for mutual understanding and support between the public and private sectors is at hand, (Fosler and others, 1986). Further, state agencies will have to become more accountable both in planning and in production if we expect to maintain or improve our economy. Public educational institutions are no exception.

The 1986 report of the National Governor's Association contains many valuable messages for the education community. Specifically, governors seem willing and anxious to support educational reform, if necessary, to combat the current economic problems associated with the loss of millions of manufacturing jobs throughout this country. Governors are convinced that education is a vital resource to the private sector business community, and they are willing to work for increased funding for education if they can demonstrate that the increased funding will have a positive impact on students and on the economy, (Nathan, 1986).

In short, our business leaders and our political leaders are ready to provide increased support to our public educational institutions if we can identify the economic benefits from increased funds, and if we will demonstrate accountability for our educational outcomes.

The purposes of this brief study on the economic impact of Pueblo Community College, during the Academic Year 1985-86, upon its three-county service area are to demonstrate that:

1) State funding for Pueblo Community College yields high economic dividends for Colorado.
2) Public higher education institutions can be accountable in terms of measurable economic outcomes.

## II. Introduction and Background

Several research models have been developed to measure the economic impact of public colleges and universities. Most models focus primarily upon direct expenditures, effects of deposits, real property value, jobs created, and the effects of a multiplier factor, (Gritz, 1983). Some remarkable benefits have been discovered by most economic impact studies. For instance, a 1982 study on the economic impact of Oregon's community colleges revealed that the colleges returned five times the annual investment of state and local tax dollars, (Stevenson, 1982). A similar study involving St. Louis Community College reported that the return on tax dollars expended was above 250 percent, (Cosgrove, 1984). Indeed, the State Board for Community Colleges and Occupational Education, in 1983, addressed the issue of economic accountability by determining, through two pilot studies involving Northeastern Junior College and Trinidad State Junior College, that each dollar spent by the colleges resulted in $1.90 in community income.

Pueblo Community College has increased in credit and noncredit enrollment by 214 percent since 1983-84 and has recently made major contributions in industry-specific training for new industries* in Pueblo and Pueblo West. The college currently serves 1,511 student FTE and a total of 8,300 people with combined credit and non-credit services. In 1985-86, for instance, Pueblo Community College custom-trained 1,241 people for six new industries in addition to its regular mission of providing certificate and two-year degree educational services. The college has also become a vital part of the Pueblo

*Sperry Corporation, Dayton Hudson Corporation, Morelli's, Honcho's Inc., StyleCraft Corporation, Able Corporation

Economic Development Corporation's "advance team". This team visits prospective new industries to encourage a relocation or the expansion of a facility in the Pueblo area. The College has also been a leader in the development of many new small businesses via its Myers' Center for Small Business, established in 1983. By 1986, the small business center had counseled 371 clients. Based on a June 1986 random survey of 70 clients, 40 new small businesses, representing 93 full-time and 67 part-time jobs had been established. If this sample were statistically valid, an extrapolated figure of 149 new small businesses representing 349 full-time and 253 part-time jobs have been created at least partially due to the Center for Small Business' assistance. Further, college credit FTE alone have increased nearly 20 percent in the fall of 1986 over the fall of 1985.

During 1978 through 1983, according to a 1984 report by the Colorado Vocational Association, Pueblo Community College was also experiencing the highest job placement among all of Colorado's community colleges and area vocational schools. The school believes this record for having the highest job placement rate is still valid. The college has virtually doubled its FTE enrollment since 1979-80 and, according to a 1986 Colorado Commission on Higher Education Report, Pueblo Community College experienced the highest enrollment percentage increase among all of Colorado's public colleges and universities from 1980 through 1985. The need for this more current study regarding the specific economic impact of Pueblo Community College was apparent.

When defining the economic impact of an institution, one of the major considerations involves the specific environment with which one should be concerned, (Caffery, 1971). The State's return on its investment in community colleges has been reported to be significant, especially when the ability of community colleges to attract and provide training for new businesses and industries is considered. The community college is the ideal mechanism for providing the bulk of the training needed by most industries. The new jobs created and taxes paid by new industry is considered to be an important factor when conducting an economic impact study (Forney, 1983). In the Pueblo Community College service area, which includes Pueblo, Custer, and Fremont Counties, the primary social need is jobs. This impact study, therefore, involved the effects of the college's economic development activities as the area's most significant current environmental factor.

## III. Methods and Procedures

For purposes of clarity and validity, this study utilized the time-tested basic extended cash-flow model for gathering data to represent the college's economic relationship to its service area community. Because of the college's aggressive and successful role in economic development, significant attention was given to the indirect economic impact of job placement and job creation activities. This basic model is presented here.

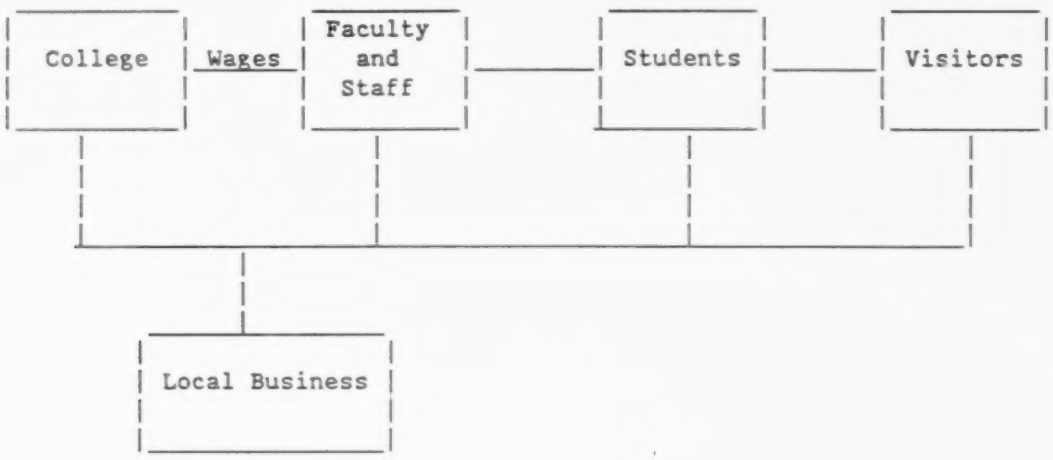


Fig. 1. Simple Expenditure Model

SOURCE: Caffrey and Isaacs, p. 5.

The research process did not formally survey all spenders, i.e., faculty and staff, students, or visitors; however, the basic effects of spending per groups were calculated by actual wages of each group using the same calculation method as described in the Caffery and Isaacs model. A conservative multiplier of 1.9 as recommended by Caffery and Issacs, and as used in the 1983 Colorado Community College pilot study, was also used in this study. It was noted that multipliers vary greatly and that a 1982 study of the economic activity in Greeley, Colorado, was 2.87. Pueblo Community College, however, elected to use the more conservative 1.9 multiplier in order to maintain the highest level of public credibility for this study. Additionally, it was recognized that Pueblo Community College was affecting its service area economy directly via real dollars and indirectly via assumed fiscal impact by programmatic activities. This report presents both the college's direct and indirect economic impact figures.

This study was not meant to be intricate nor exhaustive, but, rather, was intended to provide a current general picture of the college's economic impact upon its service area.

The mathematical formula used in this study for direct impact is represented as

A. College Expenditures
B. Faculty and Staff Wages
C. Student Financial Aid
D. Visitor Expenditures

Where A+B+C+D X 1.9M = Impact

The mathematical formula used in this study to determine indirect economic impact is represented as

A. New job wages via Economic Development.
B. New job wages via Center for Small Business.
Where A+B X 1.9 = Indirect Impact

It should be noted that this study included only verifiable data collected from wages paid in determining both the direct and indirect impacts. The wages figure for the direct impact, solely attributed to the college, and for the indirect impact, not solely attributed to the college, was exclusive of employee benefits. It was recognized that employee benefits and taxes do not normally immediately affect a local economy and an accurate measure of these variables would be difficult to produce.

## IV. Findings

It is reiterated that the data collected and reported upon in this study includes only verifiable expenditures of 1985-86 Academic Year, for both the direct and the indirect economic impact, by Pueblo Community College. The specific expenditures for the direct impact analysis included the college budget (less wages and financial aid), faculty and staff wages (less benefits and withholding taxes), student financial aid awarded, and spending by visitors to the college.

The specific expenditures for the indirect impact analysis included jobs and minimum level wages (less benefits), in new, verified small businesses assisted directly by the college's Myers' Center for Small Business and jobs and actual wages (less benefits), created by six new industries where the college contrib-
uted significantly to their acquisition and labor force training.

DIRECT ECONOMIC IMPACT

1985-86

(Academic Year)

| | |
|---|---|
| College Expenditures | $ 2,360,899 |
| Faculty and Staff Wages | 3,130,419 |
| Student Financial Aid | 1,461,693 |
| Visitor Expenditures* | 25,429 |
| TOTAL | 6,978,440 |
| TOTAL With 1.9 Multiplier | $13,259,036 |

*Included the equivalent of 431 people at an average spending rate of $59.00 per night, excluding gasoline expenses (Pueblo Chamber, 1986).

INDIRECT ECONOMIC IMPACT

1985-86

(Academic Year)

| | | |
|---|---|---|
| A. | Center for Small Business Related Job Wages* | $ 881,452 |
| B. | New Industry Job Wages** | 24,606,000 |
| | TOTAL | 25,487,452 |
| | TOTAL With 1.9 Multiplier | 48,426,158 |

*Verified wages based on 93 full time and 67 half time jobs times minimum wage.
**Verified wages based upon six new industries representing 1,241 jobs times actual salaries.

COMBINED DIRECT AND INDIRECT IMPACT

PCC 1985-86 State General Fund Support $ 3,975,387

| | |
|---|---|
| Including State Financial Aid | |
| Direct Total | 13,259,036 |
| Indirect Total | 48,426,158 |
| Combined Total | 61,685,194 |

## V. Summary, Conclusions, Recommendations

The purposes of this study on the economic impact of Pueblo Community College upon its three county service area were to demonstrate that

1) State funding for Pueblo Community College yields high economic dividends for Colorado.
2) Public higher education institutions can be accountable in terms of measurable economic outcomes.

It was recognized that numerous social and economic impact models exist. However, Pueblo Community College elected to concentrate only upon the college's economic impact of its service area via measurable expenditures. It was also the intent of the study to report only upon verifiable data using no speculation figures, excepting the conservative 1.9 multiplier recommended by the literature. Essentially the author believes that this study resulted in a very practical, creditable and conservative economic impact statement for Pueblo Community College. As such, the results can be readily interpreted and understood by educational and political leaders.

It is concluded that the 1985-86 (Academic Year) direct and indirect impact of Pueblo Community College on its service area economy is very significant, especially when compared to the State General Fund support. The direct and indirect economic impacts of this institution do indeed return high dividends to the State of Colorado, and it has been demonstrated that higher educational institutions can be accountable in terms of measurable economic outcomes.

The study demonstrates that Pueblo Community College, during the Academic Year 1985-86, made 333 percent direct return on its total State General Fund and State student financial aid investment. Further, by including the indirect economic impact, the college conservatively made a whopping 1,552 percent return on its total state investment.

It is recommended that

1) All other State-supported public colleges and universities replicate this study, utilizing the same variables and multiplier, as a means for gathering accurate local and State-wide perspectives of the economic impact of our higher education institutions.

2) This study and others like it be utilized positively in the development of State funding requests for higher education in future years.

3) Additional studies be conducted by every public college and university on a scheduled basis where each institution again uses the same model, variables and multiplier.

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